HERPETOLOGICAL NOTES FROM MALHEUR COUNTY, OREGON

ROBERT M. STORM and RICHARD A. PIMENTEL
Department of Zoology, Oregon State College
Corvallis, Oregon

Published herpetological records from extreme southeastern Oregon are few, probably due largely to the relative inaccessibility of much of this area. During the period from June 7, to June 15, 1919, a small group from the Oregon State College Museum of Natural History visited Malheur County with a view toward studying the land vertebrates of the area.

Two localities were chosen for study. The first extended from the Owyhee Reservoir, at the mouth of Leslie Canyon, to about seven miles up said canyon and four miles up Runaway Canyon, the two canyons joining five miles from the reservoir. Camp was made just below this junction in R. 45E. T. 25S., Sec. 5. Huge lava outcrops, rich in red and yellow colors, predominate the terrain. The country is very precipitous, and is either sparsely covered with small sagebrush or barren, exposing light green or gray colored rocks. A few junipers find a foothold here and there. Between the hills are canyons, floored by narrow to quarter-mile-wide flats on which the sagebrush may grow to six or seven, and occasionally ten feet tall. Most of the canyons are dry, although a very few small springs run permanently. During the day, the run-off from these springs rarely flows for more than a few hundred yards before disappearing. At night, these streams flow much farther.

The second area was in the vicinity of the junction of the three forks of the Owyhee River (R. 45E., T. 34S., Sec. 35). These rivers flow in relatively deep, steep canyons. The terrain is basically the same as in the first area, but greater water supply enables a better development of the riparian vegetation. The river and small stream vegetation is predominated by willows, a few scattered alders, and a luxuriant grass cover extending as far as one hundred feet from the streams. Above the rivers are rolling plateaus with little vegetation other than small sagebrush. Limited areas are sparsely to densely covered with small to large rocks, up to four feet in diameter.

The predominant types of soils encountered were either relatively hard packed or rocky. An almost complete lack of sandy or loose gravelly soil may account for the absence of certain records in the two localities.

LIST OF SPECIES

1. *Bufo b. boreas* (Baird and Girard).—Five males and two females were taken in a short grass-forb covered flat, bordering the Owyhee Reservoir at the mouth of Leslie Canyon. Another specimen was observed in a similar vegetation situation, this vegetation being maintained by a spring of drinkable water about five miles up Leslie Canyon from the reservoir. No toads were encountered at the second locality.

2. *Bufo w. woodhousii* Girard.—One male was taken from under a boat at the edge of Owyhee Reservoir at the mouth of Leslie Canyon. The calling of a second male caused it to be captured in the shallow edge of the reservoir. One female was taken after a light rain on the blacktop road between Nyssa and Adrian some fifty feet from the point where the highway crosses the Owyhee River. This specimen was collected at about 12:00 midnight.

3. *Hyla regilla* Baird and Girard.—Only one male was heard and collected at the first locality, following a light rain. The time of collection was about 9:00 P.M. The animal was found on damp gravelly soil next to dense herbaceous vegetation. This vegetation was supported by the runoff of a spring some seventy feet away. One male and two females were collected in the Three Forks area and many more were heard.

The only anuran larvae encountered belonged to this species. Many *Hyla* tadpoles were present in overflow pools in the second locality, these varying in size from about 20 mm. with no limbs apparent to specimens with all four limbs well developed.

4. *Uta s. stansburiana* (Baird and Girard).—Five males and two females were taken from the Owyhee Reservoir area. This form appeared to thrive in three niches around the reservoir. The first consisted of small gravel, somewhat flattened and about the consistency of pea gravel, scattered sagebrush, and relatively small rocks about four or five inches long. The lizards sunned on the gravel and rocks, but took refuge in the sagebrush when disturbed. The second habitat was very rocky, with rocks varying from three inches to four feet in diameter. The substrate was much the same as the fine material in the first habitat, but was not as deep nor as loose. No vegetation was observed. Here they sunned on the rocks but took refuge under the rocks. The third habitat was along the edge of the reservoir, and consisted of a boulder beach with little or no vegetation. It is hard to differentiate a preference between the first and second habitat, but both

were definitely preferred to the third. Here, a total of eight lizards was seen in the space of about one acre.

Three specimens of this species were seen on large rocks among the sagebrush in upper Leslie Canyon.

One pair was observed in what was probably a copulatory position. The male was gripping the female just in front of the hind legs, and was not gripping her head in his mouth. Since these two were easily disturbed, copulation had probably not begun. One female captured contained three 11 mm. eggs, and the other contained four 6 mm. eggs.

5. *Sceloporus g. graciosus* (Baird and Girard).—Two males and one female were taken on rocky islands surrounded by sagebrush. These rocky islands appear to be the result of moderate erosion during the spring run-off. These areas were located on the sagebrush plateau above the Three Fork canyon system. The female contained seven 13 mm. eggs, four of which she deposited after being mortally wounded with dust shot. Other specimens were seen but were too swift for capture.

6. *Sceloporus occidentalis biseriatus* (Hollowell).—A total of nine males and eleven females was taken from both areas. Apparently these lizards are quite strict in their choice of a rocky habitat, where they spend a great deal of time sunning themselves. Only one specimen was found away from the rocks, this animal being observed in the car headlights at about 9:30 P.M. This swift was at least one hundred feet from its typical rocky habitat.

Though wary, these fence lizards seemed quite curious and were not particularly alarmed when approached. When capture was attempted, the swifts would try to run under the rocks they were on. Some of these rocks were over fifteen feet high. The lizards usually took refuge from the sun by 10:00 A.M., but a few individuals were observed and some taken around 12:00 noon, when the ground temperature was close to 120° F.

Six of the females had near mature eggs and two had recently ovulated. Of those having eggs, two had eight, one had ten, one had eleven, and two had thirteen. The eggs ranged in size from 12 to 15 mm.

7. *Coluber constrictor mormon* (Baird and Girard).—One male and one female with three 32 mm. eggs were taken from the Three Forks collecting site. The female was taken on an open gravelly slope with scattered sage and sparse grass cover and the male was taken in a grassy meadow. At least two others were seen in grassy situations.

8. *Pituophis catenifer deserticola* Stejneger.—Two males and one female were taken from the Owyhee Reservoir locality. One male was collected on a sandy area at the edge of a sage flat, just below a small brushy canyon. The other male and the female were collected on a dirt road in Leslie Canyon at about 10:00 P.M. A second female was collected in an open grassy meadow near the middle fork of the Owyhee River. Both males had extremely dark markings, in contrast to the lighter markings of the females.

9. *Thamnophis ordinoides vagrans* (Baird and Girard).—Four males and four females were taken from the Three Forks area. Two females contained developing embryos, one contained no eggs and the other contained eggs showing no apparent embryonic growth. All snakes of this species were collected in riparian vegetation along streams or in the streams. Three of these snakes were collected while feeding on *Hyla* tadpoles in shallow overflow pools. An 800 mm. female collected in a shaded area near a stream disgorged a six-inch cyprinid when picked up.

10. *Hypsiglena ochrorhyncha* Cope.—A single specimen, 208 mm. in length, was found dead on the dirt road passing through Runaway Canyon. The canyon at this point is a comparatively narrow gorge. The canyon floor, adjacent to the road, is a jumbled accumulation of basaltic fragments from the cliffs above. This appears to be the first record for southeastern Oregon. Anderson (1940) published the first Oregon record from Umatilla Butte, three or four miles north of Hermiston, Umatilla County, Oregon. He collected two specimens from small burrows under rocks.

11. *Crotalus viridis lutosus* (Klauber).—Two males, one female and one immature were taken. One other rattlesnake was shot, but was not suitable for a specimen. An adult male found at the top of Runaway Canyon was in the shade formed by two large rocks that gradually came together and apparently formed a den farther back. A male and a female were collected under a flat rock on the sagebrush plateau above Three Forks. The snakes were together at the back of a narrow wedge-shaped recess between the rock and the ground. The immature specimen, 330 mm. long, was collected on an old dirt road in Three Forks at about 8:00 P.M.

All specimens collected are in the Oregon State College Museum of Natural History.

Published records (Van Denburgh, 1922; Brooking, 1934; Gordon, 1939; Anderson and Slater, 1941; and Storm, 1947) indicate the presence of the following uncollected forms in Malheur County:

Rana pipiens, Crotaphytus collaris baileyi, Crotaphytus wislizenii, Phrynosoma p. platyrhinos, Phrynosoma douglassii ornatissimum, Cnemidophorus t. tesselatus, Eumeces skiltonianus, Coluber t. taeniatus and *Sonora s. semiannulata.*

LITERATURE CITED

Anderson, Oscar I.
1940. The spotted night snake in Oregon. Occ. Pap. Coll. Puget Sound, 7:36-37.

Anderson, Oscar I. and J. R. Slater
1941. Life zone distribution of the Oregon reptiles. Oss. Pap. Coll. Puget Sound, 15:109-119.

Brooking, Walter J.
1934. Some reptiles and amphibians from Malheur County, in eastern Oregon. Copeia, 1934:93-95.

Gordon, Kenneth L.
1939. The Amphibia and Reptilia of Oregon. Oregon State Mono., Std. Zool., no. 1, pp. 1-82.

Storm, Robert M.
1947. *Sonora semiannulata semiannulata* in Oregon. Copeia, 1947:68.

Van Denburgh, John
1922. The reptiles of western North America. Occ. Pap. Calif. Acad. Sci., Vol. 10, 2 parts, 1028 pp.